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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,300	10/12/2005	Taketoshi Usui	01197.0254	1095

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EXAMINER	
ARNBERG, MEGAN C	

ART UNIT	PAPER NUMBER
1709	

MAIL DATE	DELIVERY MODE
07/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/532,300	USUI ET AL.	
	Examiner	Art Unit	
	Megan Arnberg	1709	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03/28/2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☒ Claim(s) *4-15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/22/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details. It is suggested that the two occurrences of “said” in line 3 be replaced with “the”.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it contains the legal phrase “said”. Correction is required. See MPEP § 608.01(b).

Claim Objections

Claims 4-15 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot be dependent on any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 4-15 have not been further treated on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "type" in claims 1-3 is a relative term which renders the claim indefinite. See lines 1, 2 and 8 of claim 1, line 1 of claim 2 and lines 1 and 2 of claim 3. The term "type" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. See MPEP § 2173.05(b). The term "based" instead of "type" or deletion of the word should be considered.

Claim 1 is further rejected under 35 U.S.C. 112, second paragraph because in line 3 describes the core covered with a capsule and a membrane, but in line 4 and later claims refers to "said capsule membrane". It is unclear whether the capsule is a separate structure than the membrane, or if "capsule membrane" refers to the same

structure. For the purpose of further examination, it is assumed that "capsule membrane" is one structure and that line 3 of claim 1 should read, "capsule membrane". Correction is needed.

Claim 2 is further rejected under 35 U.S.C. 112, second paragraph because there are no units for the second range given in line 4. For the purpose of further examination it is assumed that parts per million (ppm) is the unit. Correction is needed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishimura et al. (EP 0304503).

Regarding claim 1: Ishimura et al. teaches a curing agent/hardener comprising: a core of an amine compound that has at least one tertiary amino group, a reaction product of the amine compound and an epoxy resin as a capsule membrane/shell, a group capable of absorbing infrared rays of wave length 1630 to 1680 cm^{-1}, and a group capable of absorbing infrared rays of wave length 1680 to 1725 cm^{-1} (abstract). Because example 2 of Ishimura et al. is prepared the same way as example 2 of the instant application, using the same steps with essentially the same amount of reactants

(see page 12 paragraph labeled Preparation of hardener), although not explicitly recited, it is inherent that the weight ratio of the core and the capsule membrane formed is between 100:1 to 100:100. This is further evidenced because Ishimura et al. states that a shell has formed (page 13 lines 10-13 and Fig. 2). If it is applicants' position that this would not be the case: (1) evidence would need to be presented to support applicants' position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain a composition with this property.

Regarding claims 2 and 3: While Ishimura et al. does not directly teach that the ^{13}C-NMR spectrum of the capsule membrane/shell ratio of a largest peak height between 37 to 47 ppm to a largest peak height between 47 to 57 ppm is not lower than 3, and the melt viscosity of the amine curing agent/hardener is not higher than 10 Pa·s at 160 °C, since all of the components are present in the composition it is inherent that the composition would have these properties. If it is applicants' position that this would not be the case: (1) evidence would need to be presented to support applicants' position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain a composition with these properties.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 4, 5 and 7 of copending Application No. 10/574,981. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application describes a curing agent for an epoxy resin comprising a coated amine curing agent wherein the coating/capsule membrane has a group that absorbs infrared rays having a wavelength of 1630 cm^{-1} to 1680 cm^{-1}. Although it does not directly teach that the weight ration of the core to the coating/capsule membrane is 100:1 to 100:00, it does not exclude this ratio, and therefore includes this ratio.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 5 and 8 of copending Application No. 10/594,594. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application discloses a microcapsule/capsule membrane hardener comprising an amine core wherein the shell/capsule membrane is one having a bonding group absorbing infrared ray in a wave number region of 1630 to 1680 cm^{-1} and a bonding group absorbing infrared ray in a wave number region of 1680 to 1725 cm^{-1}. Although it does not directly teach that the weight ration of the core to the coating/capsule membrane is 100:1 to 100:00, it does not exclude this ratio, and therefore includes this ratio.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Megan Arnberg whose telephone number is (571) 270-3292. The examiner can normally be reached on Monday - Friday 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Megan Arnberg MCA
July 16, 2007

MARK EASHOO, PH.D.
SUPERVISORY PATENT EXAMINER
23/JUL/07